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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/766,995	01/28/2004	Yasuo Fukuda	CFA00046US	5020

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CANON U.S.A. INC. INTELLECTUAL PROPERTY DIVISION
15975 ALTON PARKWAY
IRVINE, CA 92618-3731

EXAMINER

ABDI, AMARA

ART UNIT	PAPER NUMBER
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2624

MAIL DATE	DELIVERY MODE
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12/26/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/766,995

Applicant(s)

FUKUDA ET AL.

Examiner

Amara Abdi

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 November 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,5,12,13 and 16-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,5,12,13 and 16-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date See Continuation Sheet.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :01/28/2004
07/20/2005
11/21/2007.

DETAILED ACTION

Request for Continued Examination

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/30/2007 has been entered.

Applicant's response to the last Office Action, filed November 30, 2007 has been entered and made of record.

2. In view of the Applicant amendments, the rejections of claims 1, 12, and 15-17 under 35 U.S.C. §112 are expressly withdrawn.

3. Applicant's arguments with respect to claims 1, 5, 12-13, and 16-19 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 5, 13, 17, and 19 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably

convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claim 5 was amended with the following limitation: "and reference face luminance". This limitation has no support from the specification, therefore, it is considered as a new matter.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 5, 12, 13, 17, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuura (US 6,493,468) in view of Imagawa et al. (US 2001/0052928), and Akerib (US 6,460,127).

(1) Regarding claims 1, 12, and 18:

Matsuura discloses an image processing device and method (column 1, line 65), (the image processing device is read as the image processing apparatus), and computer program (column 13, line 1-3), comprising:

Calculating means (S2 in Fig. 3) for calculating a highlight point and a shadow point of an image from a histogram of the image (figure 4, column 5, line 5-7);

first generating means (13 in Fig. 16) for generating a gradation correction based on the highlight point, the shadow point, the target highlight point and the target shadow point (column 9, line 19-22, and column 10, line 49-51).

Matsuura does not explicitly mention the following items:

1) detecting means, for detecting a face region in the image, and determining means for determining a representative luminance of the detected face region based on a histogram of the face region. The histogram of the face region being corrected based on the highlight point and the shadow point; and

2) second generation means for generating an exposure correction based on the representative luminance; and correcting means for correcting the image based on the gradation correction and the exposure correction.

(A) Regarding item 1):

Imagawa et al., in analogous environment, teaches an image communication terminal, where detecting a face region in the image (paragraph [0076], line 10-12), (the extracting of face is read as the same concept as the detecting of face), and determining means (112 in Fig. 22) for determining a representative luminance of the detected face region (paragraph [0260], line 11-14), (the representative luminance is read as luminance information) based on a histogram of the face region (paragraph [0261], line 11-14). (The correction of histogram of the face region based on the highlight point and the shadow point is read as the same concept as the gradation correction based on the highlight point, the shadow point, which was described by Matsuura (see column 9, line 19-22, and column 10, line 49-51).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Imagawa, where determining a luminance information, in the system of Matsuura in order to provide an image communication

terminal capable of photographing a user at a good position because a camera part follows the position of the user without using a large-scale follow-up mechanism (paragraph [0016], line 1-5).

(B) Regarding item 2):

Akerib, in analogous environment, teaches an apparatus and method for signal processing, where generating an exposure correction (column 66, line 43), and correcting the input image (column 66, line 44-46, and column 67, line 33-44), (the correcting of an image in television application is read as the same concept as the correcting of the input image), (the representative luminance was disclosed by Imagawa as a luminance information, see paragraph [0260], line 11-14).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Akerib, where generating a exposure correction, in the system of Matsuura because such system is useful in variety of applications, such as digital or analogue camera, with or without special effects such as auto focus, gamma correction, and exposure correction (column 66, line 39-43).

(2) Regarding claims 5, 13, and 19:

Matsuura discloses an image processing device and method (column 1, line 65), (the image processing device is read as the image processing apparatus), and computer program (column 13, line 1-3), comprising:

calculating a highlight point and a shadow point of an image from a histogram of the image (S2 in Fig. 3, figure 4, column 5, line 5-7);

generating a gradation correction based on the highlight point, the shadow point, the target highlight point and the target shadow point (13 in Fig. 16, column 9, line 19-22, and column 10, line 49-51).

calculating a representative luminance (column 2, line 20-21) and setting a target luminance based on the representative luminance (column 2, line 23-24).

Matsuura does not explicitly mention the detecting means for detecting a face region in the image; generating an exposure correction and correcting the image.

Akerib, in analogous environment, teaches an apparatus and method for signal processing, where detecting a face (column 67, line 9-10), (the recognition of a face is read as the same concept as the face detection), generating an exposure correction (column 66, line 43) and correcting the input image (column 66, line 44-46, and column 67, line 33-44).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Akerib, where detecting a face region in the image, in the system of Matsuura because such system is useful in variety of applications, such as digital or analogue camera, with or without special effects such as auto focus, gamma correction, and exposure correction (column 66, line 39-43).

8. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuura, Akerib, and Funayama et al., as applied to claim 1 above, and further in view of Sato et al. (US 5,953,134).

Matsuura, Akerib, and Funayama et al. disclose all the subject matter as described in claim 1 above.

Matsuura, Akerib, and Funayama et al. do not explicitly mention the image processing, where rotating the image in accordance with photographic information of the image.

Sato et al., in analogous environment, teaches an image forming apparatus, where rotating the image in accordance with the photographic information of the image (column 10, line 24-26).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Sato et al., where rotating the image, in the system of Matsuura in order to have an excellent in the stability and reliability of the quality of an image formed as well as the efficiency of the delivery of a recording sheet after the image transfer (column 4, line 37-40).

9. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuura, Akerib, and Funayama et al., as applied to claim 5 above, and further in view of Tanaka et al. (US 5,760,831).

Matsuura, Akerib, and Funayama et al. disclose all the subject matter as described in claim 5 above.

Matsuura, Akerib, and Funayama et al. do not explicitly mention the image processing method, where calculating a gamma value based on the representative luminance and the target luminance.

Tanaka et al., in analogous environment, teaches an image processing apparatus with white balance control, where calculating a gamma value based on the representative luminance and the target luminance (column 6, line 66-67, and column 7, line 1), (the representative luminance is read as R,G, and B, and the target luminance is read as the luminance signal).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the system of Tanaka et al., where calculating the gamma value, in the system of Matsuura in order to provide a white balance control which can collect data without reducing a frame (column 2, line 10-12).

Contact Information:

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amara Abdi whose telephone number is (571) 270-1670. The examiner can normally be reached on Monday through Friday 7:30 Am to 5:00 PM E.T..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wu Jingge can be reached on (571) 272-7429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Amara Abdi
12/17/2007


JINGGE WU
SUPERVISORY PATENT EXAMINER